CLAIMS/

I claim:

5 1. A method for regenerating a command comprising:

storing a linear command regeneration template including a linear node template in a memory; and

- 10 reconstructing said command using said linear command regeneration template and data from a database.
- The method of Claim 1 wherein said storing a
 linear command regeneration template further comprises:
 storing a begin option node template in said
 linear node template.
- The method of Claim 1 wherein said storing a
 linear command regeneration template further comprises:
 storing a next option node template in said
 linear node template.
- 4. The method of Claim 1 wherein said storing a
 25 linear command regeneration template further comprises:
 storing an end option node template in said
 linear node template.
- 5. The method of Claim 1 wherein said storing a
 linear command regeneration template further comprises:
 storing a begin option node template, a next
 option node template, and an end option node
 template in said linear node template.

30

- 6. The method of Claim 1 wherein said reconstructing said command using said linear command regeneration template and data from a database further comprises:
- filtering said linear command regeneration template to locate said linear node template.
- 7. The method of Claim 6 wherein said filtering said linear command regeneration template to locate

 10 said linear node template further comprises:

 scanning said linear command regeneration template to find a begin option node template.
- 8. The method of Claim 7 wherein said filtering said linear command regeneration template to locate said linear node template further comprises:

 obtaining an identification of said begin

obtaining an identification of said begin option node template.

9. The method of Claim 8 wherein said filtering said linear command regeneration template to locate said linear node template further comprises:

scanning said linear command regeneration template to find an end option node template including said identification.

- 10. The method of Claim 6 further comprising:
 passing said linear node template from said
 linear command regeneration template to an
 evaluate branches process.
 - 11. The method of Claim 10 further comprising: evaluating at least one branch in said linear node template from said linear command

regeneration template by said evaluate branches process.

12. The method of Claim 10 wherein said
5 evaluating at least one branch in said linear node from said linear command regeneration template further comprises:

finding a branch in said linear node template.

10

25

30

- 13. The method of Claim 10 wherein said evaluating at least one branch in said linear node from said linear command regeneration template further comprises:
- validating said branch using said data from said database.
- 14. A memory storing a method for regenerating a20 command, said method comprising:

storing a linear command regeneration template including a linear node template in a memory; and

reconstructing said command using said linear command regeneration template and data from a database.

- 15. The memory of Claim 14 wherein said storing a linear command regeneration template further comprises: storing a begin option node template in said linear node template.
- 16. The memory of Claim 14 wherein said storing a linear command regeneration template further comprises:

storing a next option node template in said linear node template.

- 17. The memory of Claim 14 wherein said storing a linear command regeneration template further comprises: storing an end option node template in said linear node template.
- 18. The memory of Claim 14 wherein said storing a linear command regeneration template further comprises: storing a begin option node template, a next option node template, and an end option node template in said linear node template.
 - 19. The memory of Claim 14 wherein said reconstructing said command using said linear command regeneration template and data from a database further comprises:

filtering said linear command regeneration template to locate said linear node template.

- 20. The memory of Claim 19 wherein said filtering said linear command regeneration template to locate said linear node template further comprises:
- 25 scanning said linear command regeneration template to find a begin option node template.
- 21. The memory of Claim 20 wherein said filtering said linear command regeneration template to locate
 30 said linear node template further comprises:

obtaining an identification of said begin option node template.

22. The memory of Claim 21 wherein said filtering said linear command regeneration template to locate said linear node template further comprises:

scanning said linear command regeneration template to find an end option node template including said identification.

- 23. The memory of Claim 19 further comprising:
 passing said linear node template from said
 linear command regeneration template to an
 evaluate branches process.
- 25. The memory of Claim 24 wherein said
 20 evaluating at least one branch in said linear node from said linear command regeneration template further comprises:

finding a branch in said linear node template.

25

5

10

- 26. The memory of Claim 25 wherein said evaluating at least one branch in said linear node from said linear command regeneration template further comprises:
- validating said branch using said data from said database.
 - 27. A network device comprising:
 a processor; and

10

20

35

a memory coupled to said processor, and storing a method for regenerating a command wherein upon execution of said method by said processor, said method comprises:

storing a linear command regeneration template including a linear node template in said memory; and

reconstructing said command using said linear command regeneration template and data from a database.

- 28. The network device of Claim 27 wherein said storing a linear command regeneration template further comprises:
- 15 storing a begin option node template in said linear node template.
 - 29. The network device of Claim 27 wherein said storing a linear command regeneration template further comprises:

storing a next option node template in said linear node template.

30. The network device of Claim 27 wherein said storing a linear command regeneration template further comprises:

storing an end option node template in said linear node template.

31. The network device of Claim 27 wherein said storing a linear command regeneration template further comprises:

storing a begin option node template, a next option node template, and an end option node template in said linear node template.

20

32. The network device of Claim 27 wherein said reconstructing said command using said linear command regeneration template and data from a database further comprises:

filtering said linear command regeneration template to locate said linear node template.

- 33. The network device of Claim 32 wherein said
 filtering said linear command regeneration template to
 locate said linear node template further comprises:
 scanning said linear command regeneration
 template to find a begin option node template.
- 15 34. The network device of Claim 33 wherein said filtering said linear command regeneration template to locate said linear node template further comprises:

 obtaining an identification of said begin option node template.
- 35. The network device of Claim 34 wherein said filtering said linear command regeneration template to locate said linear node template further comprises:

 scanning said linear command regeneration template to find an end option node template including said identification.
 - 36. The network device of Claim 32 further comprising:
- passing said linear node template from said linear command regeneration template to an evaluate branches process.
- 37. The network device of Claim 36 further 35 comprising:

evaluating at least one branch in said linear node template from said linear command regeneration template by said evaluate branches process.

5

- 38. The network device of Claim 36 wherein said evaluating at least one branch in said linear node from said linear command regeneration template further comprises:
- 10 finding a branch in said linear node template.
- 39. The network device of Claim 36 wherein said evaluating at least one branch in said linear node from said linear command regeneration template further comprises:

validating said branch using said data from said database.

40. A structure for regenerating a command comprising:

means for storing a linear command regeneration template including a linear node template in a memory; and

- 25 means for reconstructing said command using said linear command regeneration template and data from a database.
- 41. The structure of Claim 40 wherein said means 30 for storing a linear command regeneration template further comprises:

means for storing a begin option node template in said linear node template.



42. The structure of Claim 41 wherein said means for storing a linear command regeneration template further comprises:

means for storing a next option node template in said linear node template.

- 43. The structure of Claim 40 wherein said means for storing a linear command regeneration template further comprises:
- 10 means for storing an end option node template in said linear node template.
- 44. The structure of Claim 40 wherein said means for storing a linear command regeneration template further comprises:

means for storing a begin option node template, a next option node template, and an end option node template in said linear node template.

45. The structure of Claim 40 wherein said means for reconstructing said command using said linear command regeneration template and data from a database further comprises:

means for filtering said linear command 25 regeneration template to locate said linear node template.

46. The structure of Claim 45 wherein said means for filtering said linear command regeneration template to locate said linear node template further comprises:

means for scanning said linear command regeneration template to find a begin option node template.

30